

REMARKS/ARGUMENTS

This paper is being provided in response to the Office Action dated October 5, 2005 for the above-referenced application. In this response, Applicant has amended Claims 1, 22, and 26-28 in order to clarify that which Applicant deems to be the claimed invention. Applicant respectfully submits that the amendments to the claims are all supported by the originally filed application.

In response to the rejection of Claims 1-7, 22-28 and 41-52 under 35 U.S.C. 101 as being directed to non-statutory subject matter, Applicant has amended independent Claims 1 and 22. Applicant respectfully submits that amended Claims 1 and 22 are directed to statutory subject matter. Applicant also respectfully submits that independent Claim 41 is directed to statutory subject matter. Claim 41 recites, in part, *an antivirus unit, comprising: ... means for* The antivirus unit, as described in the specification, for example, at page 8, lines 6-13, may be implemented using a variety of computer hardware and/or software systems. The antivirus unit may be implemented as a stand alone processor, a process or program running on one or more hosts, and a distributed program with portions running on different processors. Applicant respectfully submits that the claimed antivirus unit comprising the plurality of means is directed to statutory subject matter as set forth in the specification to include hardware and/or software running on one or more processors.

In view of the foregoing amendments and remarks, Applicant respectfully requests that the rejection be reconsidered and withdrawn.

The rejection of Claims 1-4, 22-25 and 41-44 and 46-52 under 35 U.S.C. § 102(e) as being unpatentable over Waldin et al (U.S. Patent No. 6,094,731 hereinafter referred to as “Waldin”) is hereby traversed and reconsideration thereof is respectfully requested. Applicant respectfully submits that Claims 1-4, 22-25 and 41-44 and 46-52, as amended herein, are patentable over the cited reference.

Claim 1, as amended herein, recites a computer implemented method of scanning a storage device for viruses, comprising: determining physical portions of the storage device that have been modified since a previous virus scan using information about the physical portions without using information about a file structure, a file system, or a file type; and scanning at least parts of the physical portions for viruses, wherein scanning is performed without using information about a file structure, a file system, or a file type. Claims 2-4 depend from Claim 1.

Claim 22, as amended herein, recites a computer program product for scanning a storage device for viruses, the computer program product including a computer-readable medium with executable code stored thereon for: determining physical portions of the storage device that have been modified since a previous virus scan using information about the physical portions without using information about a file structure, a file system, or a file type; and scanning at least parts of the physical portions for viruses, wherein the scanning is performed without using information about a file structure, a file system, or a file type. Claims 23-25 depend from Claim 22.

Claims 41 recites a antivirus unit, comprising: means for coupling to at least one storage device; means for determining physical portions of the storage device that have been modified since a previous virus scan using information about the physical portions without using

information about a file structure, a file system, or a file type; and means for scanning at least parts of the physical portions for viruses, wherein scanning is performed without using information about a file structure, a file system, or a file type. Claims 42-44 and 46-52 depend from Claim 41.

Waldin discloses a system, method and computer readable medium for examining a file associated with an originating computer to determine whether a virus is present within the file. (See Abstract). Waldin discloses scanning a file and placing into a critical sectors file the identification number of each sector that is scanned. As each sector is operated upon, a hash value is calculated for that sector and inserted into the critical sectors file along with the size of the file scanned. (Col. 4, Lines 52-64; Figures 1 and 2). Waldin discloses determining hash values for only those sectors of a file actually retrieved by module 5 of Figure 1. Module 3 of Waldin's Figure 1 always scans the same set of sectors of a file unless the file changes in length or the contents of those sectors changes in some way. The antivirus accelerator module 5 automatically hashes all sectors scanned by module 3 in the same way regardless of contents of the sectors. No new parser or hasher coding needs to be performed and incorporated into module 5 to support new file formats. (Col. 7, Line 35-Col. 8, Line 2).

Claim 1, as amended herein, is neither disclosed nor suggested by the references, taken separately or in combination, in that the references neither disclose nor suggest at least the features of *a computer implemented method of scanning a storage device for viruses, comprising: determining physical portions of the storage device that have been modified ... without using information about a file structure, a file system, or a file type; and scanning ... wherein scanning is performed without using information about a file structure, a file system,*

or a file type, as set forth in Claim 1. Waldin discloses operating on files and uses information about files. For example, Waldin discloses using the size of a file (see step 57, Figure 5), and scanning sectors of a file (see, for example, element 1, Figure 1; step 22 of Figures 2 and 4). In order to operate on files as disclosed in Waldin, information about the file is used by Waldin. As an example, in order for Waldin to scan a file, the storage locations associated with the file are needed. Without the storage location as may be obtained, for example, using file system information, Waldin could not even determine what data to scan.

Page 6 of the Office Action appears to state that Waldin's use of information about a file size does not relate to a file type, file system or file structure as recited in Applicant's amended Claim 1. Applicant respectfully submits that Waldin's use of a file size is *information about a file structure, a file system, or a file type*. The file size is information about a file system. As set forth in the "Unix Internals" reference on page 223 submitted herewith, a file system maintains a set of attributes for each file. These attributes may be stored in a structure referred to as an "inode" or index node. The format and content of the inode may vary with file system. Some commonly supported file attributes maintained by the file system include a file size. Applicant respectfully submits that the file size is an attribute maintained by the file system for each file. Accordingly, the file size is information about a file system.

Applicant respectfully submits that Waldin teaches away from Applicant's claimed invention. Waldin operates on files and needs information about files, such as information about a file structure, a file system or a file type. This is in contrast to Applicants' claimed invention, as set forth in amended Claim 1, which recites that determining which physical portions of a

storage device have been modified and scanning are performed without using information about a file structure, a file system or a file type.

In view of the foregoing, Applicant respectfully submits that the references do not teach, disclose or suggest at least the foregoing recited features of Claim 1.

For reasons similar to those set forth regarding Claim 1, Claim 22 is neither disclosed nor suggested by the references, taken separately or in combination, in that the references neither disclose nor suggest at least the features of ***a computer program product for scanning a storage device for viruses, the computer program product including a computer-readable medium with executable code stored thereon for : determining physical portions of the storage device that have been modified ... without using information about a file structure, a file system, or a file type; and scanning ..., wherein the scanning is performed without using information about a file structure, a file system, or a file type,*** as set forth in Claim 22.

For reasons similar to those set forth regarding Claim 1, Claim 41 is neither disclosed nor suggested by the references, taken separately or in combination, in that the references neither disclose nor suggest at least the features of ***an antivirus unit, comprising: ... means for determining physical portions of the storage device that have been modified ... without using information about a file structure, a file system, or a file type; and means for scanning ... wherein scanning is performed without using information about a file structure, a file system, or a file type,*** as set forth in Claim 41.

In view of the foregoing, Applicant respectfully requests that the rejection be reconsidered and withdrawn.

The rejection of Claims 5-7, 26-68 and 45 under 35 U.S.C. § 103(a) as being unpatentable over Waldin is hereby traversed and reconsideration thereof is respectfully requested. Applicant respectfully submits that Claims 5-7, 26-28 and 45, as amended herein, are patentable over the cited reference.

Claims 5-7 depend from Claim 1. Claims 26-28 depend from Claim 22. Claim 45 depends from Claim 41. For reason set forth above, Waldin neither discloses nor suggests independent Claims 1, 22 and 45 and also neither discloses nor suggests Claims 5-7, 26-28 and 45 that depend, respectively, therefrom.

In view of the foregoing, Applicant respectfully requests that the rejection be reconsidered and withdrawn.

Based on the above, Applicant respectfully requests that the Examiner reconsider and withdraw all outstanding rejections and objections. Favorable consideration and allowance are earnestly solicited. Should there be any questions after reviewing this paper, the Examiner is invited to contact the undersigned at 508-898-8604.

Respectfully submitted,
MUIRHEAD AND SATURNELLI, LLC



Anne E. Saturnelli
Registration No. 41,290

MUIRHEAD AND SATURNELLI, LLC
200 Friberg Parkway, Suite 1001
Westborough, MA 01581
Tel: (508) 898-8604
Fax: (508) 898-8602

Date: December 14, 2005